HUNGARY

Money and Political Muscle Help Scientist Turn the Tide

Trained as an atomic physicist, Jozsef Pálinkás is now at the center of an explosion of support for science in Hungary

HERTFORDSHIRE, U.K.—Start with a new grants program to forge closer ties between state labs and industry. Add hefty raises for faculty members. Blend in a conviction that science is the engine of economic development, and the result is a hearty meal for Hungarian science served up by a former experimental physicist–turned-politician.

Jozsef Pálinkás says he's "still a scientist at heart." But fortunately for his colleagues, the 49-year-old Pálinkás is also minister for education and chief architect of a 2-year, 61% increase, to $360 million by the end of 2002, in the Hungarian science budget. Pálinkás has benefited from a strong economy and a belated realization that the former East Bloc state had let its research enterprise atrophy. But science leaders say his doggedness and political savvy have helped carry the day. "Pálinkás has brought a new way of thinking to the ministry," says Péter Csermely, a biochemist at Semmelweis University in Budapest and chief scientist at Biorex R&D Co.

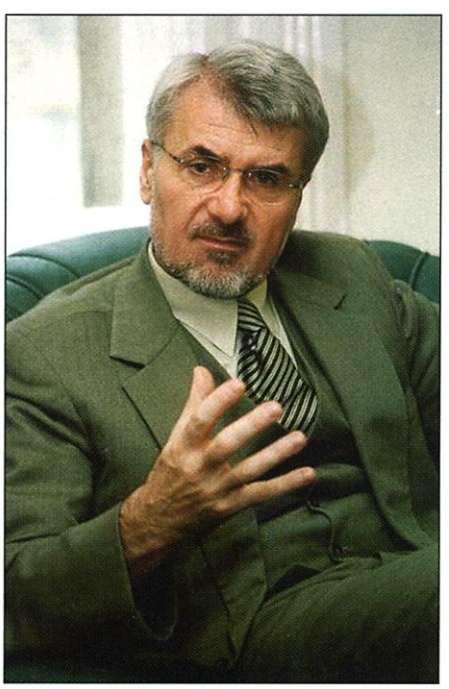
After years of economic depression, things are looking up for Hungary and its 14,500 scientists. The country's rate of economic growth—currently 5% a year—puts it near the top among Eastern European nations, and it is a strong contender for future membership in the European Union. By raising its investment in science to 0.7% of gross domestic product, Hungary hopes to climb past the Czech Republic as the R&D leader in the region.

Pálinkás was trained at home, but he headed West in the early 1980s to escape a restrictive but well-supported system modeled on the Soviet Union. He did a postdoc in the nuclear physics group at Texas A&M University, using a particle accelerator to study the effects of collisions on atomic electron shells. Later he was a visiting professor at the Manne Siegbahn Laboratory in Stockholm and at CERN, the European particle physics laboratory near Geneva. But he has spent the bulk of his career at the Institute of Nuclear Research in Debrecen, which he joined in 1977 and later directed for 6 years before becoming state secretary for education in 1998.

That appointment stemmed in part from his political activism, which grew apace with his role as a respected scientist. Although he never ran for elective office, "I was outspoken and prepared to make my opinions known," he notes. "Pálinkás possessed a special property to influence [officials] even when he had no position," says Zsolt Bor, who heads the department of optics and quantum electronics at the University of Szeged.

Pálinkás is no longer influencing politics from the outside. He sits on the new Science and Technology Policy Council, a ministerial-level body, and chairs its Science Advisory Board, a group of leading scientists that drew up a blueprint for Hungarian science. One key plank is the idea that applied science will pay long-term dividends to the economy and the standard of living.

The centerpiece of the new effort is the National Research and Development Program, which will award $58 million over 2 years. The competitive grants will go to state scientists and industrial companies working together in five areas—quality of life, information technology, environment and materials, agrobusiness and biotechnology, and national heritage and social science. In biotechnology, for example, Pálinkás says, "we want to cover the entire innovation chain, from finding basic molecules with potential to the manufacture of new drugs."



A firm hand. Hungarian scientist-statesman Jozsef Pálinkás has pushed successfully for more research funding.

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As an additional incentive, the program allows high-tech companies to write off 200% of R&D costs against taxes. The approach has drawn raves from the multinationals. István Fodor, head of the Hungarian branch of Ericsson, the Swedish telecommunications giant, cites the "positive influence ... of the extremely favorable tax allowance" in attracting foreign investment.

Pálinkás wants to attract people as well. He believes that low pay has driven away many talented scientists and discouraged students from pursuing scientific careers, so he is using part of the budget increase to boost professors' salaries from $605 to $940 a month by the end of 2002. The ministry has also introduced a salary structure for academic scientists that sets standard pay rates. "Our salaries are now competitive [with other state sectors in Hungary]," he boasts.

Although scientists applaud these efforts, some feel they don't go far enough. Education ministry officials estimate that more than 10% of the country's researchers may have been lost—mainly to the United States—in the past decade. "Unfortunately, a clear-cut initiative to bring back the young and talented Hungarian researchers staying in the U.S. is still missing," says Csermely. The ministry's István Szemenyei doesn't disagree, but explains that "our first priority was to stop the [brain drain]." Increased funding, he adds, should make Hungary more attractive to young émigrés.

Neighboring states are looking with envy at what Pálinkás has achieved. Josef Syka, president of the Grant Agency of the Czech Republic, which provides competitive research grants, says that Pálinkás is "energetic and knowledgeable" and that he is "particularly impressed" by the large funding increases.

But Pálinkás says his job is far from over. He hopes to streamline the country's current system of higher education before the current government leaves office, reducing the number of institutions and bringing their policies, curricula, and degrees in line with those in the West. He'd also like to persuade students that attractive scientific careers exist in "areas where the job market is on the rise."

Ticking off the many Nobel laureates of Hungarian birth, Pálinkás predicts that the reforms should eventually rebuild the country's shattered scientific reputation. "Science has had a rough time," he says, "but we are on the right track now."

–JOHN PICKRELL

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